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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/726,574	12/01/2000	Tsuneo Sakamoto	1921-0129P	1978
2292	7590	10/06/2003	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			CHERRY, STEPHEN J	
			ART UNIT	PAPER NUMBER
			2863	

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/726,574

Applicant(s) *HC*

SAKAMOTO ET AL.

Examiner

Stephen J. Cherry

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4, and 6-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4, 6 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. | 6) <input type="checkbox"/> Other: _____.                                   |

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent 3,855,456 to Summers et al. in view of U.S. Patent 5,463,555 to Ward et al.

The claim recites, as disclosed by Summers:

detecting data on operating states of said thermal device ('456, col. 7, line 20);

storing said detected data at specified time intervals ('456, col. 8, lines 42-45) along with time of detection as first operating state data ('456, col. 8, lines 27-31), wherein a first number of operating state data are stored in sequence so that when a new operating state data is added, an oldest operating state data is dropped ('456, col. 11, lines 46-49);

storing detected data as failure data when a failure occurs in said thermal device along with the time of failure ('456, col. 12, lines 17-22);

storing second operating state data for a second number of time intervals less than said first number of time intervals after the failure ('456, col. 12, lines 17-22);  
outputting said stored first, second operating state data and failure data ('456, col. 7, line 54 to col. 8, line 4).

Summers does not explicitly disclose collecting data at the starting point or each operating "stage", as claimed.

Ward discloses:

storing third operating state data at a starting point at each control stage ('555, col. 24, line 4, "manufacturing milestones", and fig. 9)  
outputting third operating state data ('555, fig. 9, 918).

Thus, it would have been obvious to one of ordinary skill in the art to combine the data collection system of Summers with collecting data at "milestones", as disclosed by Ward to allow collection of this data without the intervention of human operators ('555, col. 2, line 25).

Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 3,855,456 to Summers et al. in view of U.S. Patent 5,463,555 to Ward et al.

The claim recites, as disclosed by Summers:

detectors for detecting operating states of said thermal device ('456, 10);  
a processor for receiving outputs from said detectors ('456, 16);

Art Unit: 2863

a storage device connected to said processor for receiving data based on said outputs from said detectors along with a time of detecting as operating state data at specified time intervals, a first number of time intervals being stored so that when a new operating state data is added, an oldest operating state data is dropped ('456, 17,18, 19 and col. 11, lines 46-49);

said storage device also storing data when a failure occurs along with the time of failure, wherein operating state data continues to be stored for a second number of time intervals smaller than said first number of time intervals after the failure ('456, col. 12, lines 17-22);

an output device used for outputting data from said storage device ('456, 21-24 and 26).

further comprising a monitoring device for receiving data from said output device ('456, 21-24).

Summers does not explicitly disclose collecting data at the starting point or each operating "stage", as claimed.

Ward discloses:

wherein said storage device also stores operating state data at a starting point of each control stage ('555, col. 24, line 4, "manufacturing milestones", and fig. 9)

Thus, it would have been obvious to one of ordinary skill in the art to combine the data collection system of Summers with collecting data at "milestones", as disclosed by Ward to allow collection of this data without the intervention of human operators ('555, col. 2, line 25).

### ***Response to Arguments***

Applicant's arguments with respect to claims 4, 6-7 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicants arguments concerning the disclosure of a "second number of time intervals less than the first number of time intervals after the failure", Summers discloses logs 103 and 104 at column 12, line 20. Log 103, described as "turbine trip analysis" of two pages and one second frequency. Summers discloses an embodiment of a "page" as 40 lines of data at col. 11, line 42. Thus, following a failure, or "Turbine Trip", this log is filled with data at a frequency of one sample per second for 80 samples (2 pages \* 40 samples per page). Similarly, following a "turbine trip", log 104 is filled with data at a frequency of one sample every 15 seconds for 200 samples (5 pages \* 40 samples per page). Thus, log 103 contains a lesser number of samples than log 104.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Cherry whose telephone number is (703) 305-0425. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703) 308-3126. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0719.

SJC

  
John Barlow  
Supervisory Patent Examiner  
Technology Center 2800